

Some new data on the Nicoletiidae (Insecta: Zygentoma) from Europe and Asia Minor

by

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With 29 figures and 1 map

ABSTRACT

In this paper, several samples of the Nicoletiidae genera *Coletinia* and *Lepidospora* are studied. The material has been collected in Sardinia, peninsular Italy, Yugoslavia, Greece, Austria and Turkey. *Lepidospora* (L.) *escherichi* is redescribed upon Ipiro and Levke island specimens and *Lepidospora escherichi sensu* Wygodzinsky (1980), from Kós and Rhodes islands, is considered as a new taxon, *Lepidospora* (L.) *wygodzinskyi* n. sp.

INTRODUCTION

The Nicoletiidae (Zygentoma) of Europe and mediterranean basin are represented by elements of two subfamilies. The plesiomorphic Protrinemurinae (MENDES, 1988) are known to occur only in aegean Greece – the troglobiont *Protrinemura mediterranea* has been described from Iraklia (MENDES, *op. cit.*) – and in Turkey – *Trinemophora bitschiana* (WYGODZINSKY, 1959), probably an edaphic species, is known from the vicinity of Izmir. The Coletiniinae, with the exception of some rare edaphic *Lepidospora* s.s. noticed from Sicily, peninsular Italy (Tuscany), Greece, Turkey and Israel, belong to the genus *Coletinia*, restricted to the northern and eastern mediterranean basin, which species are edaphic or cavernicolous.

Nowadays, the known distribution of the Nicoletiidae Coletiniinae in this area, if we consider the reliable determinations only, is as follows:

PORTUGAL – *C. mendesi* Wygodzinsky, edaphic (WYGODZINSKY, 1980). SPAIN – *C. capolongoi* Wygodzinsky, troglobic (WYGODZINSKY, 1980); *C. asymetrica* Bach *et al.* edaphic (BACH, MENDES & GAJU, 1985); *C. mendesi* Wygodzinsky, edaphic (BACH, MENDES & GAJU, 1985). FRANCE – *C. jeanneli* (Silvestri), troglobic (SILVESTRI, 1938).

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CORSICA – *C. corsica* (Chopard), edaphic (CHOPARD, 1924). SARDINIA – *C. subterranea* (Silvestri), edaphic (WYGODZINSKY, 1980). PENINSULAR ITALY – *C. subterranea* (Silvestri), edaphic (SILVESTRI, 1902) (WYGODZINSKY, 1980); *C. maggii* (Grassi), edaphic (PARONA, 1888) (GRASSI & ROVELLI, 1889) (WYGODZINSKY, 1980) (MENDES, 1981). SICILY – *C. maggii* (Grassi), edaphic (GRASSI, 1887) (GRASSI & ROVELLI, 1889); *C. subterranea* (Silvestri), edaphic (WYGODZINSKY, 1980); *C. setosula* Wygodzinsky, (?) edaphic (WYGODZINSKY, 1980); *L. (L.) grassii* (Escherich), edaphic (ESCHERICH, 1905) (WYGODZINSKY, 1980). MALTA – *C. maggii* (Grassi), edaphic (MENDES, 1981). YUGOSLAVIA – *C. maggii* (Grassi), edaphic (WYGODZINSKY, 1980). BULGARIA – *C. bulgarica* (Kosaroff), (?) edaphic (KOSAROFF, 1939). GREECE (Corfu island) – *C. subterranea* (Silvestri), edaphic (SILVESTRI, 1908); – *L. (L.) escherichi* Silvestri, edaphic (SILVESTRI, 1908). TURKEY – *C. longissima* Mendes, troglitic (MENDES, 1988); *L. (L.) aquilonaris* (Wygodzinsky), edaphic (Wygodzinsky, 1959) ? (PACLT, 1974) ? (WYGODZINSKY, 1980). ISRAEL – *L. (L.) silvestrii* Wygodzinsky, edaphic (WYGODZINSKY, 1942).

Further samples composed by female or juvenile specimens only, have been pointed out (WYGODZINSKY, 1980) to SPAIN (*Coletinia* sp I and sp II, both cavernicolous), to PENINSULAR ITALY (*Coletinia* sp III and *Lepidospora* sp) and to YUGOSLAVIA (*Coletinia* sp IV), edaphic.

The sample of *C. subterranea* referred to the Eastern Pyrenean, France, by DENIS (1923), corresponds undoubtedly to any other species in the genus; it has been pointed, indeed, «... ne montre pas d'appendice en languette à l'Ant. Il gauche...», a quite typical feature of the SILVESTRI's 1902 species.

In the present paper, we deal with several samples of *Coletinia* and with a few specimens of *Lepidospora* s.s.; unfortunately, many of the former are composed by females only, which unables an accurate determination. The specimens have been collected in the Sardinia island, peninsular Italy, Yugoslavia (Dalmatia), Greece (ionian area) and Turkey. *Lepidospora escherichi* Silvestri "re-described" by WYGODZINSKY (1980) upon Kós and Rhodes material, is considered as a new taxon, *L. (L.) wygodzinskyi* n. sp.; almost topotypical material from the Silvestri's greek species (collected in Levkás island and in the western Ipiros, geographically quite close to Corfu), allow the redescription of *Lepidospora escherichi*, which description was based upon immature specimens only.

The material is deposited in the following entomological collections: Centro de Zoologia do Instituto de Investigação Científica Tropical (CZ), E. Christian Collection (ECC), Gruppo Speleologico Sassarese (GSS), Museum d'Histoire naturelle de Genève (MG), Museo civico di Storia Naturale "Giacomo Doria" (MGD), Museo regionale di Scienze Naturali di Torino (MT), Forschungsinstitut und Museum Senckenberg (MS) and Università di Genova (UG).

We are deeply grateful to the colleagues who so kindly lent or offered the specimens which are the aim of this paper: Dr. E. Christian from Vienna, Austria; Dr. G. Gardini from Genova, Italy (UG); Dr. P.M. Giachino from Torino, Italy (MI); Dr. G. Graffiti from Sassari, Sardinia, Italy (GSS), Dr. B. Hauser from Geneva, Switzerland (MG); Dr. R. Poggi from Genova, Italy (MGD) and Dr. H. Schröder from Frankfurt-Main, Germany (MS).

Coletinia longissima Mendes, 1988

Examined material: TURKEY – Silifke, Astim Dilek Magara, 11/VII/1988, col. F. Gardini, R. Rizzario & S. Zoia, 3♂♂ 2♀♀ 6 immature specimens (UG) 1♂ 1♀ (CZ).

This troglitic species was quite recently described (MENDES, 1988) upon material from the same area; the types were collected some 20 Km NE of Silifke though in a

distinct cave (the Asthma Cave), quite probably part of the same cave-system. The specimens under study fully agree with the original description though some of the adults (of both sexes) are clearly longer than the firstly known ones; the longer ♂ and ♀ attain a body length of 18.9 mm (5 mm more than in the bigger type-specimen) and one of the studied ♀ ♀, which terminal filament is not damaged, shows a total length of 39.0 mm; the cerci of this same specimen, quite probably undamaged, are as long as 19.2 mm.

Coletinia maggii (Grassi, 1887)

Nicoletia phytophila PACLT, 1961 *nec* Gervais, 1844 n. syn.

Examined material: AUSTRIA – Vienna, Stadtpark (=city park) under stones near composts, 15/V/1990, col. H. Gross, 2♂♂ (CZ); *ibid.* 28/V/1990, 1♂ (ECC). ITALY – Lippiano (near Arezzo), ?/VIII/1909, col. Dr. Andreini, 1♂ (MGD); Varazze (Liguria occ.), 28/III/1959, n° 188, 1♂ (MS).

The sample from Varazze (MS) was determined as *Nicoletia phytophila* by PACLT (1961); during a short visit to the Senckenberg Museum and thanks to the kindness of Dr. Schröder, we had the chance to study this only slide which includes one typical male of *Coletinia maggii*. *Nicoletia phytophila* enters, so, as a new synonymy of the Grassi's species. The geographical distribution of this taxon, known till now to extend from Malta and Sicily through continental Italy to Dalmatia, is clearly widened northwards and the species reported for the first time in Central Europe; the presence of typical adult males of *Coletinia maggii* in northeastern Austria, collected in a garden (outside greenhouses) may correspond to a well established introduced population or may represent no more than the lack of carefully carried *Zygentoma* prospections in Slovenia, Karintia and Styria. The actual finding of *Coletinia maggii* in Vienna problemizes again the taxonomic position of the "*Nicoletia*" registered in Central Europe and particularly of those noticed from Hungary (PACLT, 1959 and 1974), which status has never been clarified: *Nicoletia phytophila* Gervais, 1844 or *Coletinia maggii* (Grassi, 1887) ?

Coletinia subterranea (Silvestri, 1902)

Examined material: ITALY (SARDINIA) – Campeda, 28/IV/1908, col. A. Doderò, 1♂ (MGD); Daieri, 2/V/1908, col. A. Doderò, 2♂♂ (MGD).

The species was known from Sardinia exclusively by the specimens collected in Bosa and reported by WYGODZINSKY (1980). The males now pointed to Campeda and to Daieri agree closely to the redescription of the species (WYGODZINSKY, *op. cit.*).

Coletinia cf. subterranea (Silvestri, 1902)

Examined material: ITALY (SARDINIA) – Voragine "Sa Nurra 'e Leone", Monte Coazza, Dorgali, Nuoro, 8/XII/1985, col. R. Loru, n° 810 Dorgali, 1♀ (GSS); Grotta Pisanu (o di Gurenno), Monte Coazza, Dorgali, Nuoro, 3/I/1987, col. G. Grafitti, n° 872 Dorgali, 1♀ (GSS); no precise location, no date, col. A. Doderò, 1♀ (MGD). Italy (Sicily) – Ficuzza, 25/V/1906, col. A. Doderò, 1♀ (MGD).

The registered samples are considered under *C. cf. subterranea* (Silvestri), on account of some minor differences and due to the absence of collected males, though the main morphological characteristics agree fairly with those presented in the redescription of

the species (WYGODZINSKY, 1980). The only ♀ from Ficuzza is uniformly yellowish brown and no differences on integument colour have been observed; the faint pigmentation must correspond, as WYGODZINSKY (*op. cit.*) referred, to a not fully developed specimen – the body length attained 7.4 mm. Both ♀♀ from the Dorgali district and the only specimen from the MGD collection, with the general characteristics of the species (the ovipositor is thin and long, extending behind the IX stylets by 2.75–3.6 times these stylets length), present, however, a few setae in the hind border of the Xth urotergite (Fig. 1); furthermore, the ♀♀ from Monte Coazza caves, collected both in dark area, in stalagmitic soil or in stalagmitic concretions and 200–300 m far off the entrance, though not very well preserved, seem to be more thin and delicate than the typical specimens of *Coletinia subterranea*.

Coletinia sp. A

Examined material: YUGOSLAVIA – Krk island, near the chapel of Sveti Fusca, NW of the village Vrh, under a big stone in *Quercus ilex* bush, 20 m inland of the shore, 5 m asl, 28/VII/1987, col. E. Christian, 1 ♀ 1 ♀ immature (CZ); Ibid., Sveti Fusca Bay, west of Vrh, *Quercus pubescens* wood, under stones, 3 m asl, 26/VII/1988, col. E. Christian, 1 ♀ immature (CZ).

Both samples from the Krk island include females and one only is an adult specimen; its ovipositor is short and robust, 20–23 articulated and extending behind the IX stylets by about twice their own length; the subgenital plate is parabolic, rounded in the distal margin and setose, and the cephalic capsule shows a “*capolongoi*-type” chaetotaxy (Fig. 2); the bigger ♀ Xth urotergite (Fig. 3) remains that of *Coletinia subterranea* (WYGODZINSKY, 1980) though its posterior depression seems not so clear; it is completely different from the Xth tergite of *Coletinia maggii* – noticed from the Ombla valley, in Dalmatia (WYGODZINSKY, 1980) – as it is from the same tergite of *Coletinia* sp. III – collected in the neighbouring Sistiana (WYGODZINSKY, *op. cit.*) – the only Nicoletiidae in the area. Only the eventual capture of adult males in Dalmatia and/or Istria, will allow to know the exact taxonomic status of these samples.

Coletinia sp. B

Examine material: ITALY – Voltaggio, 27/VI/1908, col. A. Doderò, 1 ♀ (MGD).

This only ♀ with 8.2 mm of body length, collected a few miles north of Genova, belongs quite probably to *Coletinia maggii*; the ovipositor is 23–25 articulated and extends beyond the IXth stylets by about 2.5 times their own length; presents a subgenital plate very alike those I observed in other ♀♀ of this species, shows a frontal chaetotaxy typical of this species, with short setae and a few macrochaetae; the Xth urotergite (Fig. 4) presents, however, a greater number of lateral marginal setae and much stronger apical setae in the under surface.

Coletinia spp.

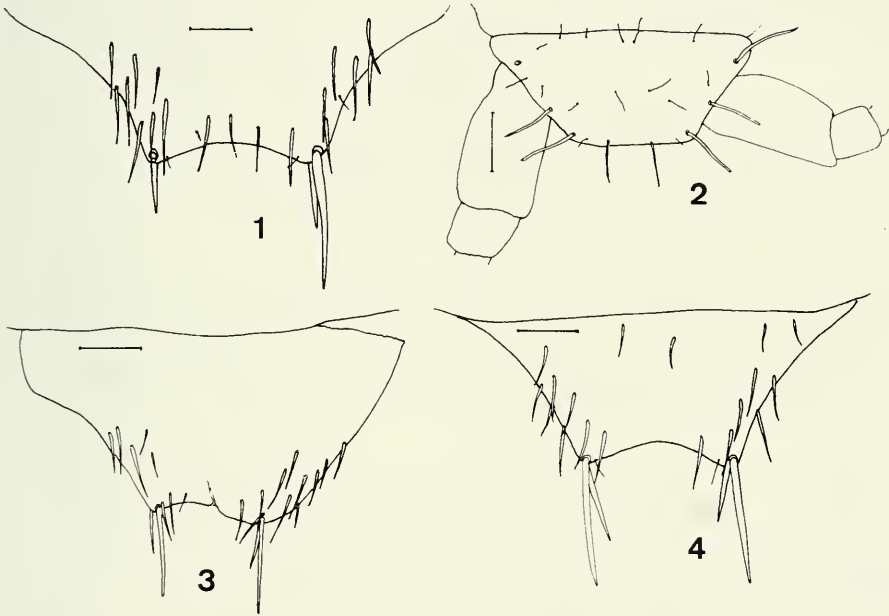
Examined material: FRANCE – Galerie du Pré à Vincent, St. Didier au Mont d'Or, Rhône, 11/VII/1986, col. M. Meyssonier, 1 young ♂ (MG). ITALY – Voltaggio, 20/IX/1909, col. F. Sotari, 1 juv (MGD). ITALY (SARDINIA) – Doliali, Dorgali, Gr. Pisanu, 15/XI/1985, n° 215 SINU, col. P.M. Giachino, 1 young ♂ (MT).

The registered specimens are too young to allow a more detailed determination; the young ♂ from Sardinia was accompanied by the following label: “*Nicoletia jeanneli*

Silvestri det. P.M. Giachino 1986"; though devoided of sexual secondary characteristics, which will allow a specific determination, it is much more probable that this specimen will correspond to the species wch adults have been collected in this same cave, *Coletinia* cf. *subterranea* as stated before.

Lepidospora (L.) *escherichi* Silvestri, 1908

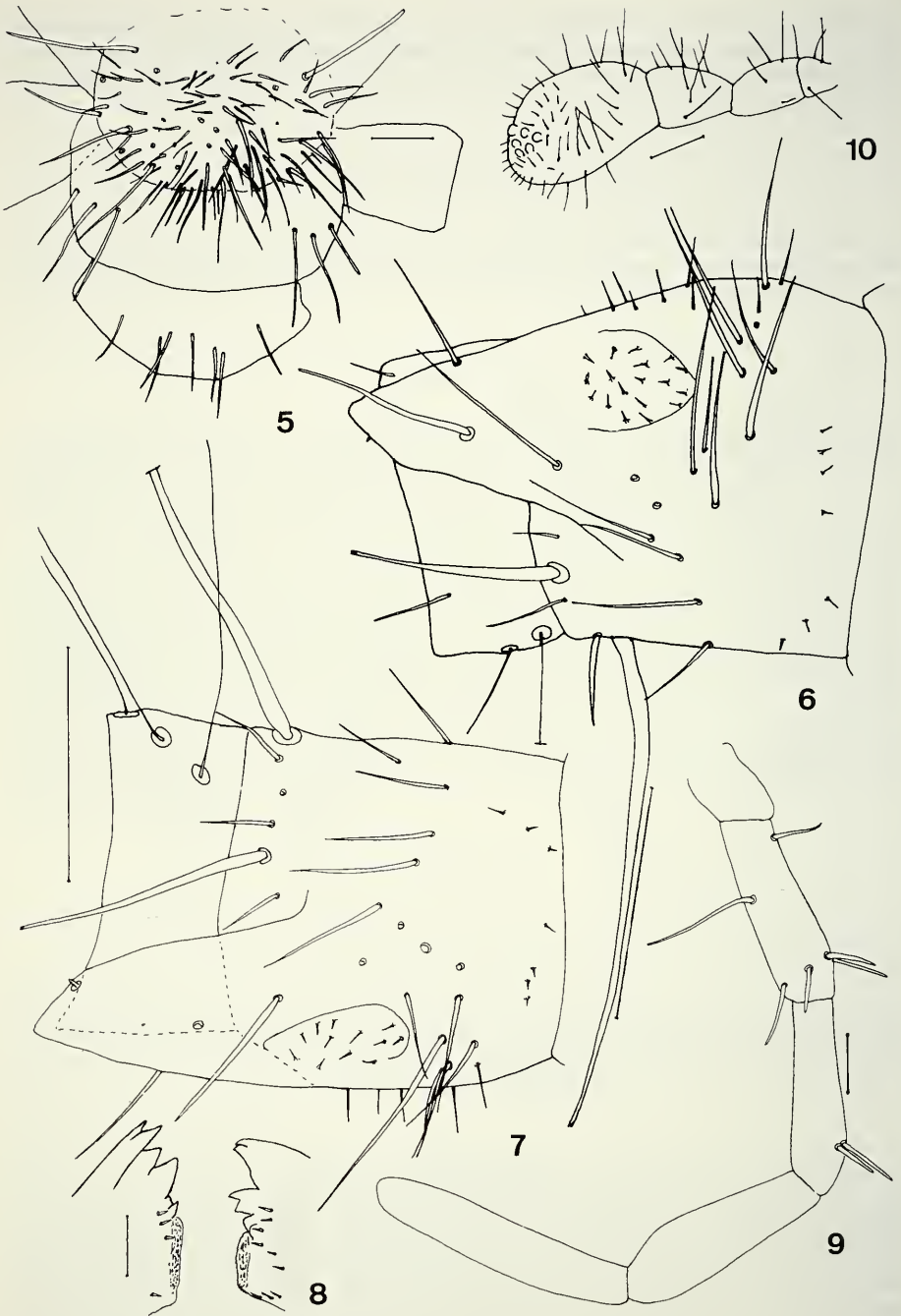
Examined material: GREECE – Leucade (= Leukás or Levkás), au-dessus de Phryni, oliviers et macchia, 27/III/1971, col. V. Mahnert, n° GR-71/36, 1♂ 1♀ (MG) 1♂ 1♀ (CZ); Epire (= Ipiros), au nord de Kestrión, 30 m, sous arbutus, 5/V/1973, col. V. Mahnert, n° EP-73/96, 1♂ (MG).



FIGS 1-4.

Fig. 1. *Coletinia* cf. *subterranea* ♀, specimen from the MGD Xth urotergite; Fig. 2. *Coletinia* sp. A ♀, frontal chaetotaxy of the adult specimen; Fig. 3. Ibid., Xth urotergite; Fig. 4. *Coletinia* sp. B ♀, Xth urotergite. Scales: 0.1 mm.

Lepidospora escherichi was described from Corfu (=Kerkira) (SILVESTRI, 1908) and, as latter reported (WYGODZINSKY, 1980), all the type material was immature; in this same paper, WYGODZINSKY "re-describes" the species upon adult males and females collected in the aegean island of Kós and points its presence (based on further young specimens) in the not very far Rhodes island. On account of the several similarities presented by the Corfu and the aegean specimens it was stated (WYGODZINSKY, 1980: 23): "... In order not to continue burdening the literature with names of unrecognizable species, I have redescribed *Lepidospora escherichi* from adults... collected on Kós, which, although not topotypical is



reasonably close... to make specific identity a distinct possibility...". The study of the adult specimens collected in the Levkás island and in western littoral Ipiros, both geographically much closer to the type locality of Corfu, and the conspicuous dissimilarities presented by the ionian and the aegean specimens, led us to consider the material obtained in Phryni and in Kestrión as conspecific with *L. escherichi*, and the specimens from Kós and Rhodes (the aegean islands) as part of a not yet named taxon (while described in detail under the name of *L. escherichi*) we will analyse afterwards.

Based on the ionian insular and western mainland specimens considered above, and having in mind that the only real description of this species is, indeed, the original one, based in non-adult material, we will proceed, right away, to its redescription.

Body length: 5.1-5.2 mm (♂) 5.0-5.4 mm (♀); thorax length (1.9-2.0 mm (♂) 1.8-1.9 mm (♀); thorax width: 1.5-1.6 mm (♂) 1.6-1.7 mm (♀). Body limuloid, elongated. Hypodermal pigment absent, the general colour yellowish white or ivory. Macrochaetae yellowish brown, the stronger ones apically bipid. Scales typical, whitish, with abundant rays, little while clearly visible and very abundant.

Head without special features, the frons with a few strong and long macrochaetae and numerous shorter and thinner setae, as in Fig. 5. Antennae of ♀ without special characteristics. Pedicellus of ♂ (Figs 6 and 7) with a strong distal inner apophysis, longer than wide at base, conical, provided with a very little anteapical conule and with an inner subovoid fovea; distal area of the apophysis extending beyond the level of the first flagellar article.

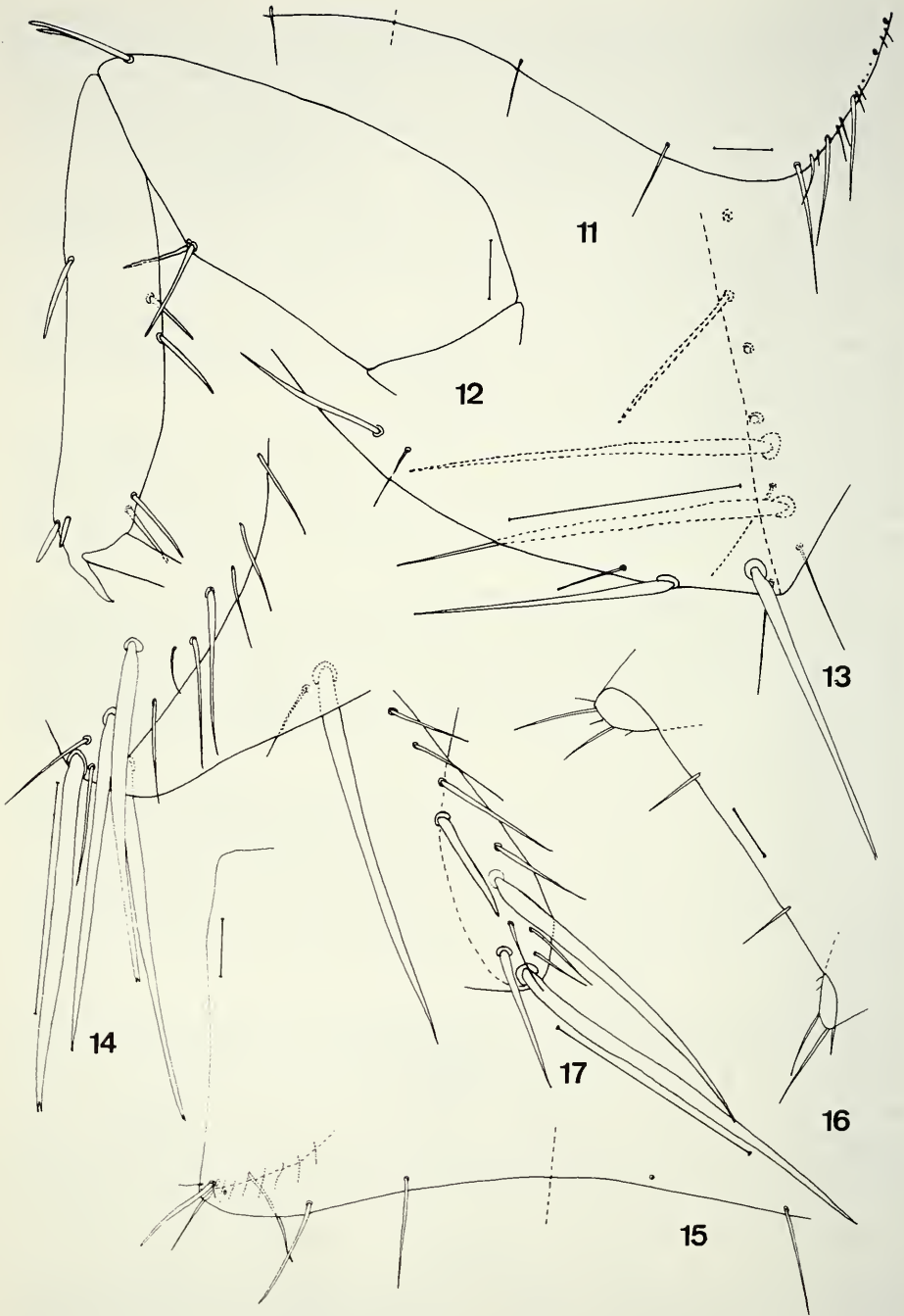
Mandibles typical, with numerous acute and sclerotized distal teeth, as in Fig. 8. Maxillae as in the remaining species of the genus; galea with two strong apical conules, the lacinia equally long and with an inner pectinated area which extends close to the distal outer tooth, the bigger one of the pair. Maxillary palp as in Fig. 9, with a few strong macrochaetae in the 2nd and in the distal dorsal area of the 3rd article; distal article about 5 times longer than wide and 1/5 longer than the penultimate ($n/n-1 = 1.26-1.33$). Labium typical, the labial palp as in Fig. 10.

Nota scaly, with thin and short setae and isolated macrochaetae along the lateral borders (Fig. 11) and with 2+2 short setae in the posterior margin; among the scales, in the disc, abundant minute isolated thin cilia. Legs robust, the tibia of P III (Fig. 12) about 4 times longer than wide, with one only dorsal (with the exception of the distal dorsal short ones) and 4 ventral thin macrochaetae, clearly shorter (ca 3/4) than the tibial diameter; femur with a pair of ventral distal and an isolated dorsal distal macrochaeta. Praetarsus without special features, the lateral claws longer than the empodium, this one clearly setulated.

Urotergites I-VIII with 4+4 posterolateral (or 2+2 posterolateral and 2+2 close infralateral) macrochaetae, the external ones accompanied in the outer and ventral area by 5-6 thin setae, as in Figs 13 and 14; in the 1st urotergite, 1+1 or 2+2 short and delicate sublateral macrochaetae, in the remaining II-VIII tergites 2+2 stronger and longer macrochaetae wide spaced as in Fig. 15. IXth urotergite without strongly produced posterolateral lobes, with 1+1 sublateral macrochaetae only (Fig. 16), its lateroventral chaetotaxy as in Fig. 17, the inner macrochaeta of each pair distinctly shorter than the

FIGS 5-10.

Lepidospora (L.) escherichi Silvestri, 1908. Fig. 5. Chaetotaxy of the frons, clypeus and labrum; Fig. 6. ♂ pedicellus of antenna; Fig. 7. Ibid., from one other specimen; Fig. 8. Mandibles; Fig. 9. Maxillary palp; Fig. 10. Labial palp. Scales: 0.1 mm.



outer one mainly in the ♂. Urotergite X of the ♀ as in fig. 18, clearly emarginated, the angle formed by the inner margins of the apical notch of 90-100°; lateral margins with a row of 5-7 setae; macrochaetae of the posterolateral angles long and stout, longer than the marginal setated area. Xth ♂ urotergite (Figs 19 and 20) deeply emarginated, the sides of the emargination forming an angle of ca. 50°, the posterolateral lobes triangular and wide; dorsal surface with a lateral row of strong setae and 1+1 similar antedistal setae, the terminal macrochaeta absent; ventral surface provided with 8-10 sclerotized brownish conules, the most anterior longer and clearly thinner, the remaining ovoid; apical peg the largest.

Urosternite I with a triangular sternite and 1+1 wide lateral coxites, typical. Urosternites II-VII with a pair of stylets (Figs 21 and 22), entire, with 1+1 short and stout submedian macrochaetae close each other besides several thinner setae; those from the vesicles (in sternites II-VI) are longer, those from the pseudovesicles (in the VIIth) as long as the remaining; disc of the urosternites scaly, with isolated tiny cilia. Coxite VIII of ♂ (Fig. 23) with the submedian area protruding between the stylets and with about 8-10 stout and long macrochaetae, almost all clearly longer than the submedian ones of the preceding sternites (twice longer and acute pointed – those of the II-VII are apically biphid); longer macrochaetae as long as 2/3-3/4 of the distance between the most external pair. IXth stylets stout, much longer and stronger than the preceding pairs, provided with some very strong setae and with two ventral long macrochaetae (Fig. 24). Paramera as in Figs 24 and 25, cylindrical, 4.5-5 times longer than wide, shorter than the level of the insertion of the stylet hind macrochaeta, attaining the length of 2/3 of the IXth stylets. Subgenital plate of the ♀ (Fig. 26) widely parabolic, with an irregular row of marginal short setae. Ovipositor strong, fusiform (Fig. 26), extending beyond the apex of the IXth stylets by their own length. Gonapophyses with 11 articles, the VIIIth clearly stronger, their chaetotaxy as in Figs 27 and 28.

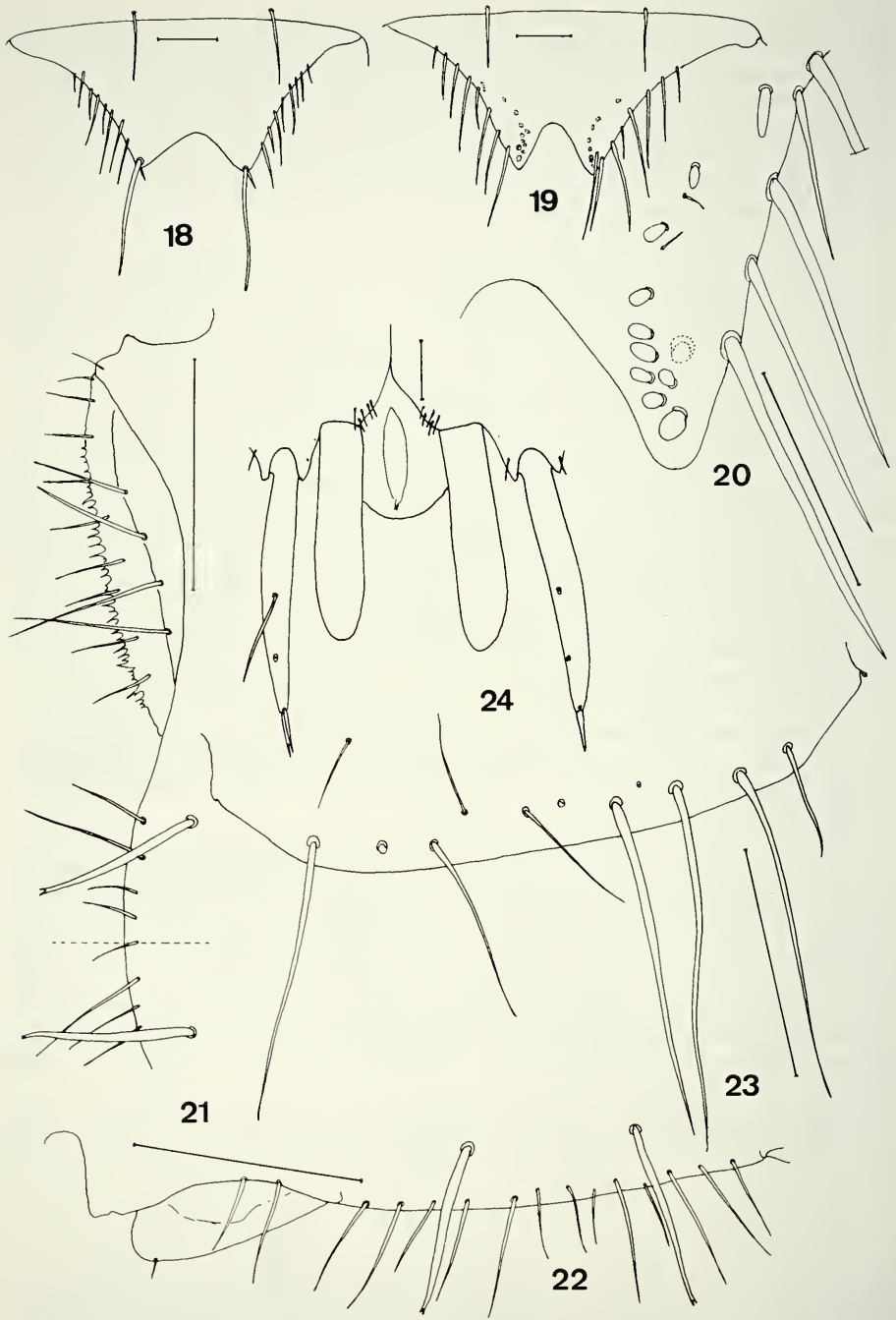
Cerci of ♂ and all the terminal filaments of ♀ with the usual chaetotaxy, the terminal median filament with very strong and elongate ventral macrochaetae. Dorsal surface of ♂ terminal filament (Fig. 29) with 10-12 sclerotized pegs in the basal area, arranged in 2 (exceptionally 3) longitudinal rows.

D i s c u s s i o n : *L. escherichi* Silvestri, seems to approach, among the described mediterranean species, *L. aquilonaris* (at least the type material from Alexandretta, in as much as the sample from the european Turkey – PACLT, 1974 – has not been confirmed as belonging to this same species); the shape of the ♂ Xth urotergite and its specialized chaetotaxy are quite alike; however, this so briefly described turkish taxon (WYGODZINSKY, 1959, as *Lepidospora silvestrii aquilonaris*) shows a Xth ♂ urotergite less deeply emarginated, with a distinct while similar specialized chaetotaxy and the sclerotized pegs are clearly thinner than in the ionian SILVESTRI's species; furthermore, the number of pegs in the basal dorsal terminal filament is clearly higher in the turkish species.

Relatively to the aegean species which has been "redescribed" as *L. escherichi* (see afterwards), the differences are quite evident; they concern several features as: the shape

FIGS 11-17.

Lepidospora (*L.*) *escherichi* Silvestri, 1908. Fig. 11. Hind border and posterolateral area of mesonotum; Fig. 12. P III; Fig. 13. Detail of the chaetotaxy of 1st urotergite; Fig. 14. Infralateral chaetotaxy and external sublateral macrochaeta of the VIIIth urotergite; Fig. 15. VIth urotergite; Fig. 16. IXth urotergite; Fig. 17. Ibid., infralateral chaetotaxy. Scales: 0.1 mm.



of the ♂ pedicellar apophysis; the shape of the lateral lobes of the ♂ Xth urotergite and the number and shape of the ventral pegs; the distinct elongation of the tibiae (mainly Ti III) and the dorsal chaetotaxy of the femur; the number and mainly the length and robustness of the hind border macrochaetae in the ♂ VIIIth urostermite; the number of sclerotized pegs in the ♂ terminal median filament; the more elongated ovipositor; the length of the posterolateral Xth urotergal macrochaetae in the ♀.

***Lepidospora* (L.) wygodzinskyi n. sp.**

Lepidospora escherichi WYGODZINSKY, 1980 nec Silvestri, 1908.

As referred before, the samples of *Lepidospora* collected in the aegean islands of Kós and Rhodes (which correspond to the only known material of this new taxon), has been considered by WYGODZINSKY (1980) as *Lepidospora escherichi* and the material from Kós – the specimens from Rhodes are all immature – served as the base to his “redescription” of the SILVESTRI’s species. The text and figures presented are quite detailed and are sufficient to characterize the new *L. wygodzinskyi*.

The species is named after its describer, who noticed and figured accurately the main morphological characters as pointed, Dr. P.W. Wygodzinsky. It is, furthermore, an homage to a great entomologist, deceased in the 27th January 1987, whose first publication on thysanurans (in 1939) was the start to an extraordinarily scientific career (see TÉRAN, 1987 and SCHUH & HERMAN, 1988) with a production of almost 250 papers; 70 among these, concern Microcoryphia and/or Zygentoma and include one of the largest contributions to the knowledge of these two orders: the original description of 11 genera and 146 species of Microcoryphia and of 16 genera and 80 species of Zygentoma in addition to an endless list of redescriptions.

As far as we know, the mediterranean *Lepidospora* are completely allopatric, extending from Sicily and peninsular Italy to Greece, Turkey and Israel (MAP 1).

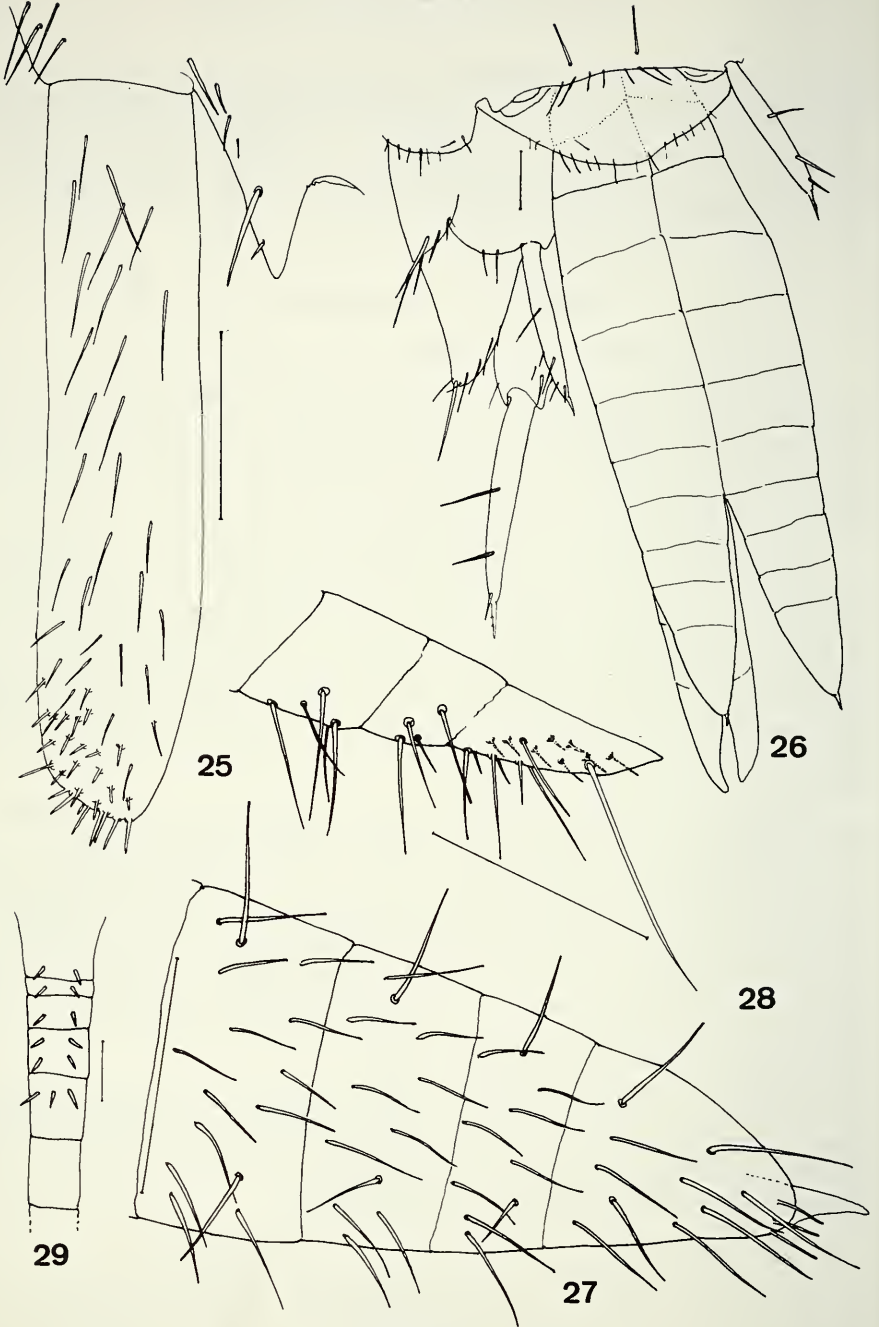
The palestinian taxon (WYGODZINSKY, 1942) seems much more closely allied to the species described from the Kurdistan and southern Iraq as already stated (MENDES, 1985), on account of the much higher number of sensorial pegs in the ventral ♂ Xth urotergite.

The *status* of the sicilian and of the mainland italian *Lepidospora* populations remains, as discussed by WYGODZINSKY (1980), quite problematic, as neither from Sicily nor from Tuscany adult specimens are actually known – nor even the validity of *L. grassi* has been definitely established, as no further material has been studied after the description of *Nicoletia grassi* (ESCHERICH, 1905).

As already discussed (WYGODZINSKY, 1980) the species from Kós seems particularly close to the ionian *L. escherichi* and to the turkish *L. aquilonaris* by the type of chaetotaxy in the Xth urotergite of ♂, but it is completely distinct on account of the shape of the ♂ antennal pedicellar apophysis and of the morphology of the lateral lobes of the ♂ Xth urotergite; both these features seem to be species-specific.

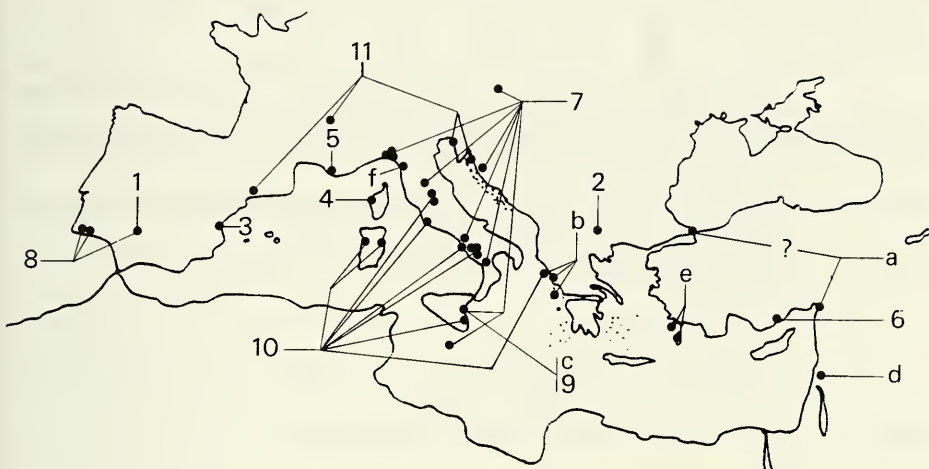
FIGS 18-24.

Lepidospora (L.) *escherichi* Silvestri, 1908. Fig. 18. Xth urotergite of ♀, dorsal view; Fig. 19. Xth urotergite of ♂, dorsal view; Fig. 20. Ibid., detail of the ventral pegs; Fig. 21. Vth urostermite; Fig. 22. VIIIth urostermite; Fig. 23. VIIIth urostermite of ♂; Fig. 24. Genital area of ♂. Scales: 0.1 mm.



FIGS 25-29.

Lepidospora (L.) escherichi Silvestri, 1908. Fig. 25. Paramerum; Fig. 26. Genital area of ♀ and subgenital plate; Fig. 27. VIIIth gonapophyses, distal articles; Fig. 28. IXth gonapophyses, distal articles; Fig. 29. Pegs of the ♂ dorsal basal terminal filament. Scales: 0.1 mm.



MAP 1.

Known distribution of the Coletiniinae of Europe and Asia Minor. Genus *Coletinia* (n. 1-11); genus *Lepidospora* (n. a-f). 1. *C. asymetrica*; 2. *C. bulgarica*; 3. *C. capalongoi*; 4. *C. corsica*; 5. *C. jeanneli*; 6. *C. longissima*; 7. *C. maggii*; 8. *C. mendesi*; 9. *C. setosula*; 10. *C. subterranea*; 11. *Coletinia* spp. a. *L. (L.) aquilonaris*; b. *L. (L.) escherichi*; c. *L. (L.) grassi*; d. *L. (L.) silvestrii*; e. *L. (L.) wygodzinskyi*; f. *Lepidospora* s.s. spp.

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